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REPORT OF REVENUE OUTLOOK  
FOR LAST 6 MONTHS OF FY...



STATE OF SOUTH CAROLINA  
BOARD OF ECONOMIC ADVISORS

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STATE DOCUMENTS

To: South Carolina Budget and Control Board

From: Harry W. Miley, Jr.

Subject: Report of Revenue Outlook for Last Six Months  
of FY 1991-92

The Board of Economic Advisors is required by Section 11-9-880 of the 1976 South Carolina Code of Laws to provide a synopsis of the revenue outlook for the last six months of Fiscal Year 1991-92 on December 31, 1991. The synopsis for December 31, 1991 is provided herein with supporting tables.

The concerned attitude of the buying public has spread to many of the national forecasters who are currently viewing developments and future prospects of the U.S. economy much less sanguinely than a month or two ago. The more negative outlook on the part of consumers has developed not only from uneasiness about their own economic situation but equally from the uncertainty created by the lack of a satisfactory response to events from Washington and the daily spotlight by the media on every statistic as it is released.

The result of the consumer negativism and of the response of manufacturers and retailers to it has been lowered forecasts by most mainstream economists for the last quarter of 1991 and

the first quarter of 1992, but which avoid, if only barely, a return to a period of outright recession. Instead, the predictions are for continued weakness into the first quarter of 1992. The rate of growth of real GNP in the second quarter of 1992 is now anticipated to be in the 4% to 4.5% range at annualized quarterly rates, rebounding from minimal or zero growth in the first quarter of 1992. For Fiscal Year 1991-92 as a whole, both real Gross National Product and the conceptually new real Gross Domestic Product are now expected to increase by less than 1%. Inflation is anticipated to be in the 3.5% range with the unemployment rate at 6.5% to 7% for Fiscal Year 1991-92. Personal Income in the final quarter of the fiscal year should increase by 5.5% at annualized quarterly rates, after hovering below 3% in the first quarter of Fiscal Year 1991-92.

The economy of South Carolina has fared better than that of the nation since the eight-year expansion reached a peak at the national level in July 1990. Supported by continued positive effects of post-Hugo rebuilding, the military and industrial activity generated in the State by Operation Desert Shield, and the advantages for the State of the weakened dollar on imports and exports, the economy of South Carolina was able to delay the downturn at the national level for six months until December 1990. Even after deteriorating conditions at the national level began to affect the level of State activity, the brunt of the recession was less intense in the State. In June of this year when unemployment in the nation reached 7%, it was nearly half a percentage point lower in South Carolina. Indeed, throughout

the period since July 1990, the unemployment rate in South Carolina has remained well below that in the nation. Currently, the unemployment rate in the State based on latest available data is a full percentage point below the U.S. rate.

National forecasters are urging a great deal of caution in the use of their most recently released outlooks. They note that their forecasts are based on historical data which have undergone recent massive revisions from official sources in Washington. In addition, the new concept of Gross Domestic Product has been introduced at this time to assume the major role formerly played by Gross National Product for the past 50 years in tracking past developments and in forecasting future economic activity. Inconsistencies in the data have already been cited and it is generally agreed that it will be at least a month before they are reconciled. The data problems are being superimposed on an economy beset with cyclical and long term structural problems which in themselves would be cause for lowered confidence levels in the consensus forecasts.

Past and recent relationships between the U.S. and South Carolina economies indicate that the most probable scenario for the South Carolina economy, given the U.S. outlook, is for the economy of the State to follow the path of the nation. If current trends continue, growth of personal income in South Carolina for Fiscal Year 1991-92 should be at national rates, rising from below 3% at annualized quarterly rates in the beginning quarter of this fiscal year to a 5.5% increase in the last quarter of this fiscal year. The unemployment rate in South

Carolina should be below that in the U.S.

Revenue patterns this fiscal year to date have been essentially as anticipated, with weakness compared to the strong performance of revenues in the first half of Fiscal Year 1990-91. In that period, revenues showed continued strength from the support of post-Hugo activity and from national factors that served to delay by six months the U.S. downturn on the economy and revenues in South Carolina. In the second half of last fiscal year, however, FY 1990-91 revenues reversed course and declined more than economic conditions would have indicated. Given this pattern, it has been expected that any strength in full year FY 1991-92 collections would come in the second half of this fiscal year as compared to last fiscal year. It was in that period that revenue performance first indicated weakness, with a sharp downturn in January 1991 collections.

The next seven months are crucial for FY 1991-92 revenues to reach the \$3440 million of the forecast. There is nothing in the available economic data for South Carolina to date that indicates a divergence from pattern. The lowered U.S. consensus forecasts, however, do add an extra measure of uncertainty. The Board of Economic Advisors intends to review the data as they are released within this context.

On February 15, with two more months of data and a clearer indication of the national economy in the first quarter and developments in South Carolina, an assessment of revenues for the remainder of the fiscal year in relation to the estimate will be

made. If the anticipated strength in revenues for the remaining months of the fiscal year does not materialize, then an adjustment to the forecast by the BEA can be expected. Until that time, the Board of Economic Advisors sees no basis for change in the estimate of \$3440 million for Fiscal Year 1991-92.

Board of Economic Advisors

December 31, 1991

TABLE I  
GENERAL FUND REVENUES  
FISCAL YEARS 1991-92 AND 1992-93  
(In Millions of Dollars)

	ACTUAL FY 1990-91	BEA 10/9/91 REVISED ESTIMATE FY 1991-92	BEA 10/9/91 ESTIMATE FY 1992-93
TOTAL GENERAL FUND (1)	3305.4	3440.0	3625.0
Total Regular Sources (1)	3258.1	3377.5	3580.0
Sales Tax (1)	1155.4	1201.0	1271.0
Individual Income Tax	1386.6	1461.0	1581.0
Corporation Income Tax	142.7	153.0	165.0
All Other	573.4	562.5	563.0
Miscellaneous Sources	47.2	62.5	45.0
Education Improvement Fund	290.519	300.250*	317.750*
Interest on Education Improvement Fund	1.988	1.800	1.800
TOTAL	292.507	302.050	319.550
		<u>RATES OF CHANGE**</u>	
TOTAL GENERAL FUND		4.1%	5.4%
Total Regular Sources		3.7	6.0
Sales Tax		3.9	5.8
Individual Income Tax		5.4	8.2
Corporation Income Tax		7.2	7.8
All Other		-1.9	0.1
Miscellaneous Sources		32.3	-28.0
Education Improvement Fund		3.3	5.8
Interest on Education Improvement Fund		-9.5	0.0
TOTAL		3.3	5.8

(1) Net of Education Improvement Fund.

\* One-fifth of total sales tax.

\*\* Percent change based on unrounded figures.

Board of Economic Advisors  
October 10, 1991

TABLE II  
REVIEW OF GENERAL FUND REVENUE COLLECTIONS AND STATE INCOME GROWTH

FISCAL YEARS	PERSONAL INCOME AT ANNUAL RATES (MILLIONS OF \$)	PERCENT CHANGE PRIOR YEAR QUARTER	CUMULATIVE GENERAL FUND REVENUE (MILLIONS OF \$)	PERCENT CHANGE PRIOR YEAR QUARTER	RATIO OF REVENUE GROWTH TO INCOME GROWTH
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1988-89					
1988: 3	45,696	9.80	781.428	8.11	0.828
4	46,619	8.77	1,561.795	6.09	0.694
1989: 1	48,330	11.30	2,290.089	7.63	0.675
2	48,802	9.07	3,142.455	6.95	0.766
1989-90					
1989: 3	46,043	0.76	785.029	0.46	0.605
4	50,202	7.69	1,626.553	4.15	0.540
1990: 1	51,778	7.13	2,409.636	5.22	0.732
2	52,818	8.23	3,294.771	4.85	0.589
1990-91					
1990: 3	53,566	16.34	866.215	10.34	0.633
4	53,863	7.29	1,775.978	9.19	1.261
1991: 1	54,439	5.14	2,496.152	3.59	0.698
2	54,873	3.89	3,305.738 1/	0.32	0.082
1991-92					
1991: 3	55,240*	3.13*	790.216 1/	-8.77	-2.802*
4	55,704*	3.42*	1,659.700*	-6.55*	-1.915*
1992: 1	56,253*	3.33*	2,459.000*	-1.49*	-0.445*
2	57,025*	3.92*	3,440.025*	4.07*	1.038*
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Note: 1989:3 and 1990:3 reflect the methodology used by the U.S. Department of Commerce for calculating the effect of Hurricane Hugo on personal income in South Carolina.

\*: Forecasts, Board of Economic Advisors, October 9, 1991.

1/: On July 30, 1991, the Budget and Control Board (BCB) approved a change in accounting principle for Sales Tax revenues from the cash basis to the modified accrual accounting basis. The BCB resolution required that sales taxes collected by merchants in June and received by the State in July be reported as revenue in June rather than in July. This change resulted in a \$5.2 million decrease in reported FY 1990-91 Sales Tax revenue. A July 20, 1992 adjustment will be made effective June 30, 1992 for FY 1991-92 Sales Tax revenue.



REVENUE FORECASTING PROCEDURES  
BOARD OF ECONOMIC ADVISORS  
FISCAL YEARS 1992 AND 1993

The procedures and methodology of the Board of Economic Advisors in the preparation of the revenue forecast for Fiscal Years 1991-92 and 1992-93 as of December 31, 1991 and January 1, 1992 involved three major stages: 1) providing the economic background and setting at the national and State levels for the revenue forecasts; 2) interpreting recent and historical revenue relationships; and 3) interacting with officials of other states with responsibility for revenue forecasting.

The Board members consulted as in the past with business and financial experts and professional economists for economic intelligence gathering. This included a meeting held on October 9, 1991 in Columbia with the National Advisory Council to the Board of Economic Advisors. Present at the meeting were: J. Alfred Broadus, Jr., Ph.D., Senior Vice President and Director of Research, Federal Reserve Bank of Richmond; Ben E. Laden, Ph.D., Director of Financial Institutions Regulations Staff, Department of Housing and Urban Development; James A. Morris, Ph.D., Distinguished Professor of Economics Emeritus, University of South Carolina; Ronald P. Wilder, Ph.D., Chairman, Department of Economics, University of South Carolina; David A. Wyss, Ph.D., Senior Vice President and Research Director, Data Resources, Inc.; and Bruce Yandle, Jr., Ph.D., Alumni Professor of Economics and Executive Director of the Strom Thurmond Institute, Clemson University.

The resources of the national forecasting groups by which the SCOPE model and other forecasts are driven, Data Resources, Inc., Evans Economics, Inc., and WEFA, Inc., were available weekly and monthly to Board members and staff. Materials from a variety of sources--international, national and State publications--were also made available to Board members and staff. In addition, there was Board interaction with numerous national and regional economists. Further, there was BEA staff representation at the 1991 Fall Economic Outlook Conference, Daniel Management Center, University of South Carolina, November 26, 1991.

## BRIEF OVERVIEW OF THE SCOPE MODEL

The SCOPE (South Carolina Operations Planning and Evaluation) Model was initiated in 1972 in the Office of Chief Economist (originally in the Governor's office). It was designed and operated as a policy and forecasting tool for top level executive, legislative and management decision making. SCOPE is an econometric model designed to reflect the South Carolina economy and to forecast the performance of major economic variables in the State, particularly tax revenues, employment and income. The model is based on a framework of economic activity in the State relative to national economic activity with approximately 85 exogenous national variables provided by leading national forecasting services such as Data Resources, Inc., the WEFA Group, and Evans Economics, Inc.

The SCOPE core econometric model consists of 51 equations, of which 37 are stochastic\* and 14 are identities. SCOPE attempts to reflect the diversity of the South Carolina economy by including 19 industrial sectors of manufacturing and nonmanufacturing employment, and a series of equations for wages, personal income and unemployment.

### Durable Manufacturing Employment

The durable manufacturing employment block consists of ten stochastic equations for the major industries in the State as reported by the South Carolina Employment Security Commission. The employment equations for each separate industry are expressed as a function of a national consumption expenditure index appropriate for that particular industry, a national industrial production index corresponding to that industry and the national level of employment in that industry. The durable employment forecasts include the following industries: Lumber and Wood Products, Stone, Clay and Glass, Primary and Fabricated Metal Products, Electrical and Nonelectrical Machinery and Other Durables which includes Furniture and Fixtures, Transportation, Instruments and Related Products.

### Nondurable Manufacturing Employment

The nondurable manufacturing employment block consists of seven stochastic equations for the major nondurable industries in the State. Like the durable block, the employment equation for each industry is expressed as a function of a national consumption index appropriate for that particular industry, a national industrial production index for that particular industry and the national level of employment in that industry. Employment forecasts are available for each of the following nondurable industries: Food and Kindred Products, Textile Mill Products, Apparel, Paper, Printing and Publishing, Chemicals and Other Nondurables, such as Rubber and Miscellaneous Plastics Products.

\* Stochastic is defined as a type of modeling for time series analysis explaining future probability from historical experience.

## Nonmanufacturing Employment

The nonmanufacturing employment block is disaggregated into eight stochastic equations: Mining, Construction, Transportation and Public Utilities, Services, Trade, Finance-Insurance-Real Estate, State and Local Government and Federal Government. Employment growth in these industries is specified as functions of State population, national employment in these industries and national consumption indices.

## Personal Income

The personal income block is composed of 12 equations, one equation for the unemployment rate, one equation to adjust for nonresidents, and ten additional equations for each of the ten major components of personal income as published by the Bureau of Economic Analysis, U.S. Department of Commerce. These equations are specified as functions of their respective national and State income and employment variables. In addition, equations are estimated for wage and salary disbursements for all major industries and are specified as functions of national wage trends and State employment levels.

## Revenues

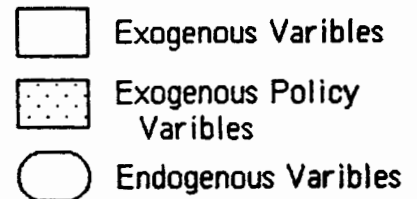
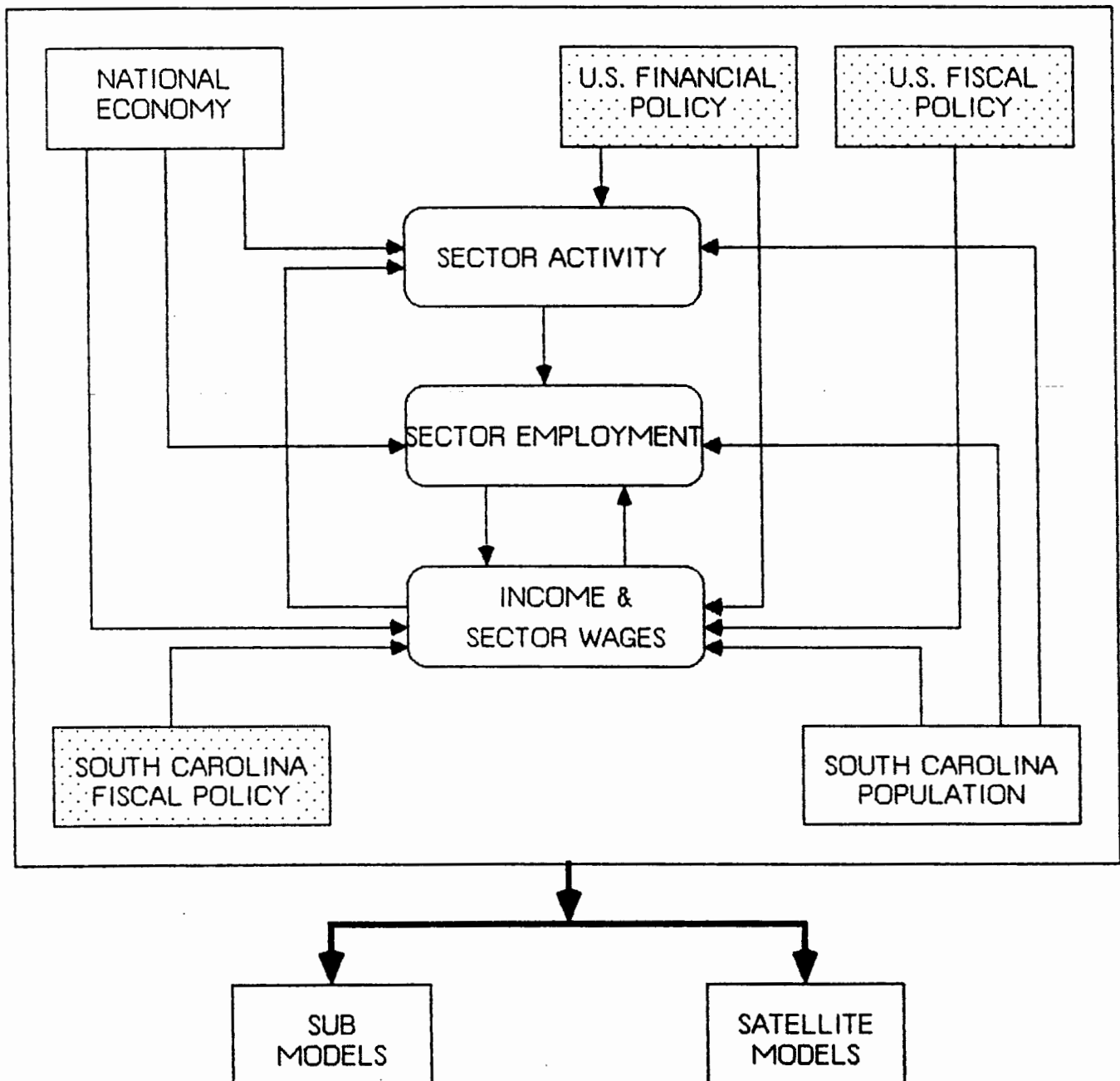
The revenue section of the model is being structured to emphasize four major stochastic Regular Revenue Sources equations: 1) South Carolina corporate income tax, 2) South Carolina individual income taxes, 3) South Carolina retail sales tax, and 4) all other taxes. These equations are individually specified as functions of aggregate employment and income with their respective coefficients and constants. In addition, there are two stochastic equations for taxable sales and refunds.

The core economic model is completed and operative. The equations are currently being respecified to account for major revisions in historical data from the U.S. Department of Commerce. Reformulation and respecification of the revenue model is in progress.

Board of Economic Advisors  
December 31, 1991

# SCOPE MODEL

## SOUTH CAROLINA OPERATIONS, PLANNING & EVALUATION MODEL





STATE OF SOUTH CAROLINA  
BOARD OF ECONOMIC ADVISORS

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REVENUE OUTLOOK - FY 1992-93

AS OF JANUARY 1, 1992

The Board of Economic Advisors is required by Section 11-9-880 of the 1976 South Carolina Code of Laws to consider adjustments to the official revenue forecast for the 1992-93 fiscal year on January 1, 1992. It has done so. It determined that while forecasts for FY 1992-93 revenues stand largely on their own, they are also influenced by the level of anticipated collections of FY 1991-92. Therefore, no adjustment in the forecast of \$3625 million made on October 9, 1991 is warranted until December and January revenue data are available and a clearer indication of the direction and strength of the economies of South Carolina and the nation in the first quarter of 1992 emerges. If the anticipated strength in revenues for the remaining months of Fiscal Year 1991-92 does not materialize, adjustments to the forecast by the Board of Economic Advisors can be expected.

Board of Economic Advisors

Harry W. Miley, Jr.

January 1, 1992

STATE OF SOUTH CAROLINA  
TOTAL BUDGETARY GENERAL FUND  
QUARTERLY ESTIMATES  
Fiscal Years 1991-92 and 1992-93  
(In Millions of Dollars)

	FY 1991-92 -----	FY 1992-93 -----
FIRST QUARTER	790.2 *	841.0
SECOND QUARTER	1659.7	1753.0
THIRD QUARTER	2459.0	2601.3
FOURTH QUARTER	3440.0	3625.0

PERCENT OF TOTAL REVENUES  
COLLECTION BY QUARTER

	FY 1991-92 -----	FY 1992-93 -----
FIRST QUARTER	23.0 **	23.2
SECOND QUARTER	25.3	25.2
THIRD QUARTER	23.2	23.4
FOURTH QUARTER	28.5	28.2

\*: Actual.

\*\*: Actual quarterly data as percent of total estimate.

Note: Tax collections for June sales accrue in the month of June.

Board of Economic Advisors  
October 10, 1991